

L Number	Hits	Search Text	DB	Time stamp
1	7255	diagnostic and immunoassay	USPAT; US-PGPUB	2001/09/06 10:52
4	9731	diagnostic and immunoassay	USPAT; US-PGPUB	2001/09/06 10:52
7	9731	(diagnostic and immunoassay) and PY<1998	USPAT; US-PGPUB	2001/09/06 10:52
10	676	(diagnostic and immunoassay) and diagnostic.clm.	USPAT; US-PGPUB	2001/09/06 10:54
13	463	((diagnostic and immunoassay) and diagnostic.clm.) and (antibod\$3 or immunoglob\$4).clm.	USPAT; US-PGPUB	2001/09/06 11:00
16	439	(diagnostic and immunoassay) and (PSA or prostate adj2 antigen or gelonin)	USPAT; US-PGPUB	2001/09/06 11:08
19	106	(diagnostic and immunoassay) and (gelonin)	USPAT; US-PGPUB	2001/09/06 12:54
22	3	(diagnostic and immunoassay) and (gelonin).clm.	USPAT; US-PGPUB	2001/09/06 12:58
25	2647	hydrophobic and hydrophilic and epitope	USPAT; US-PGPUB	2001/09/06 13:05
28	21	hydrophobic near10 hydrophilic near10 epitope	USPAT; US-PGPUB	2001/09/06 13:02
31	9	hydrophobic and hydrophilic and epitope	EPO; JPO; DERWENT; IBM TDB	2001/09/06 13:05

L1 ANSWER 3 OF 58 MEDLINE
AN 96022930 MEDLINE
DN 96022930 PubMed ID: 7562243
TI Development of a microplate ELISA for free PSA and PSA-ACT
complex in serum.
AU Wu J T; Wilson L W
CS Department of Pathology, University of Utah School of Medicine, Salt Lake
City, USA.
SO JOURNAL OF CLINICAL LABORATORY ANALYSIS, (1995) 9 (4) 252-60.
Journal code: JLA; 8801384. ISSN: 0887-8013.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199511
ED Entered STN: 19951227
Last Updated on STN: 19951227
Entered Medline: 19951101

} order from
STC

L1 ANSWER 7 OF 58 CAPLUS COPYRIGHT 2002 ACS
AN 1998:597841 CAPLUS
DN 130:2875
TI Epitope mapping of anti-PSA antibodies and
implications for the interpretation of diagnostic assays for serum PSA
levels
AU McCabe, Richard P.; Gero, Eva J.; Giles-Komar, Jill; Liang, Shaohong;
Worthington, Katherine; Heavner, George A.
CS Pharmaceutical Research and Diagnostic Research and Development, Centocor
Inc., Malvern, PA, 19355, USA
SO Peptides 1996, Proceedings of the European Peptide Symposium, 24th,
Edinburgh, Sept. 8-13, 1996 (1998), Meeting Date 1996, 625-626.
Editor(s): Ramage, Robert; Epton, Roger. Publisher: Mayflower Scientific,
Kingswinford, UK.
CODEN: 66RCA5
DT Conference
LA English
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD

} order

L1 ANSWER 9 OF 58 CAPLUS COPYRIGHT 2002 ACS
AN 1997:408824 CAPLUS
DN 127:107675
TI Characterization of 10 new monoclonal antibodies against prostate-specific
antigen by analysis of affinity, specificity and function in sandwich
assays
AU Corey, Eva; Wegner, Sandra K.; Stray, James E.; Corey, Michael J.; Arfman,


Edward W.; Lange, Paul H.; Vessella, Robert L.
CS Tumor Immunology Laboratory of the Urology Department, The School of
Medicine of the University of Washington, Seattle, WA, USA
SO Int. J. Cancer (1997), 71(6), 1019-1028 *JUNE 11, 1997*
CODEN: IJCNAW; ISSN: 0020-7136
PB Wiley-Liss
DT Journal
LA English
1 ANSWER 28 OF 58 USPATFULL
AN 2002:63693 USPATFULL
TI Immunological process for PSA determination
IN Hosel, Wolfgang, Tutzing, GERMANY, FEDERAL REPUBLIC OF
Peter, Jochen, Research Triangle Park, NC, United States
Unverzagt, Carlo, Munich, GERMANY, FEDERAL REPUBLIC OF
PA Roche Diagnostics GmbH, GERMANY, FEDERAL REPUBLIC OF (non-U.S.
corporation)

PI US 6361955 B1 20020326
AI US 1999-283955 19990401 (9)
PRAI DE 1998-19814915 19980403
DT Utility
FS GRANTED
LN.CNT 514
INCL INCLM: 435/007.100
INCLS: 435/007.400; 435/023.000; 436/064.000; 436/536.000; 530/412.000
NCL NCLM: 435/007.100
NCLS: 435/007.400; 435/023.000; 436/064.000; 436/536.000; 530/412.000
IC [7]
ICM: G01N033-53
ICS: G01N033-573; G01N033-536; C12Q001-37; C07K001-14
EXF 435/4; 435/7.1; 435/7.2; 435/7.21; 435/7.23; 435/7.4; 435/23; 436/501;
436/536; 436/8; 436/15; 436/64; 530/395; 530/350; 530/412; 530/413
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1 ANSWER 51 OF 58 USPATFULL
AN 1999:1519 USPATFULL
TI Monoclonal antibodies specific for the PSA-ACT complex
IN Kuus-Reichel, Kristine, San Diego, CA, United States
Linton, Harry Jay, Encinitas, CA, United States
Payne, Janice K., San Diego, CA, United States
Wang, Tang J., Poway, CA, United States
PA Beckman Coulter, Inc., Fullerton, CA, United States (U.S. corporation)
PI US 5856182 19990105
AI US 1996-749525 19961118 (8)
DT Utility
FS Granted
LN.CNT 734

INCL INCLM: 435/330.000
INCLS: 530/387.700; 530/388.800; 435/007.230
NCL NCLM: 435/330.000
NCLS: 435/007.230; 530/387.700; 530/388.800
IC [6]
ICM: C12N005-06
ICS: C12N005-16; G01N033-574; C07K016-00
EXF 424/184.1; 424/193.1; 424/277.1; 435/7.1; 435/7.23; 435/330; 530/387.7;
530/388.8; 530/388.85
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L1 ANSWER 1 OF 1 USPATFULL
AN 1999:18918 USPATFULL
TI Natural resistance associated macrophage protein and uses thereof
IN Barton, Charles Howard, Southhampton, United Kingdom
White, Jacqueline Katie, Cambridge, MA, United States
Blackwell, Jenefer Mary, London, United Kingdom
PA The Wellcome Trust Limited as Trustee to the Wellcome Trust, London,
United Kingdom (non-U.S. corporation)
PI US 5869247 19990209
WO 9520044 19950727
AI US 1996-676279 19961008 (8)
WO 1995-GB95 19950119
19961008 PCT 371 date
19961008 PCT 102(e) date
PRAI GB 1994-929 19940119
GB 1994-22021 19941031
DT Utility
FS Granted
LN.CNT 2205
INCL INCLM: 435/006.000
INCLS: 435/912.000; 530/300.000; 530/387.100; 536/024.100; 536/024.310;
536/024.330
NCL NCLM: 435/006.000
NCLS: 435/091.200; 530/300.000; 530/387.100; 536/024.100; 536/024.310;
536/024.330
IC [6]
ICM: C12Q001-68
ICS: C12P019-34; A61K038-16; C07H021-04
EXF 435/4; 435/6; 435/9; 435/12; 435/320.1; 530/300; 530/350; 530/387.1;
536/23.1-24.33; 536/24.1; 935/6; 935/8; 935/77; 935/78
CAS INDEXING IS AVAILABLE FOR THIS PATENT.



=> s epitope and hydropathy

L2 709 EPITOPE AND HYDROPATHY

=> s l2 and antibody

L3 647 L2 AND ANTIBODY

=> s l3 and cosine

L4 3 L3 AND COSINE

=> d l4 1-3

L4 ANSWER 1 OF 3 USPATFULL

AN 2001:221143 USPATFULL

TI Immunogenic peptides of prostate specific antigen

IN Kokolus, William J., 285 Victoria Blvd., Kenmore, NY, United States
14217

Fritsche, Herbert A., 4506 Frontier, Houston, TX, United States 77041

Johnston, Dennis A., 2010 Ramada Dr., Houston, TX, United States 77062

PI US 6326471 B1 20011204

AI US 1998-146831 19980904 (9)

RLI Continuation of Ser. No. US 1995-472228, filed on 7 Jun 1995, now
patented, Pat. No. US 5807978

DT Utility

FS GRANTED

LN.CNT 1554

INCL INCLM: 530/387.900

INCLS: 530/387.100; 530/388.100; 530/388.250; 530/389.100; 530/389.300;
530/300.000; 530/350.000

NCL NCLM: 530/387.900

NCLS: 530/300.000; 530/350.000; 530/387.100; 530/388.100; 530/388.250;
530/389.100; 530/389.300

IC [7]

ICM: C07K016-18

ICS: C07K016-06; C07K016-30; C07K016-40; C07K007-08

EXF 530/387.1; 530/387.9; 530/388.1; 530/388.15; 530/388.24; 530/388.25;
530/388.8; 530/388.85; 530/389.1; 530/389.2; 530/389.3; 530/389.7;
530/300; 530/350

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 2 OF 3 USPATFULL

AN 2000:68711 USPATFULL

TI Immunobiologically-active linear peptides and method of identification

IN Kokolus, William J., 285 Victoria Blvd., Kenmore, NY, United States
14217

Fritsche, Herbert A., Houston, TX, United States

Johnston, Dennis A., Houston, TX, United States

PA Kokolus, William J., Kenmore, NY, United States (U.S. individual)

PI US 6070126 20000530
AI US 1998-97078 19980612 (9)
PRAI US 1997-49613P 19970613 (60)
DT Utility
FS Granted
LN.CNT 1285
INCL INCLM: 702/019.000
INCLS: 530/300.000
NCL NCLM: 702/019.000
NCLS: 530/300.000
IC [7]
ICM: C07K014-00
EXF 530/300; 702/19
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 3 OF 3 USPATFULL
AN 1998:112052 USPATFULL
TI Immunogenic peptides of prostate specific antigen
IN Kokolus, William J., 7900 Cambridge St. #14-2L, Houston, TX, United States 77054
Fritsche, Herbert A., 4506 Frontier, Houston, TX, United States 77041
Johnston, Dennis A., 2010 Ramada Dr., Houston, TX, United States 77062
PI US 5807978 19980915
AI US 1995-472228 19950607 (8)
DT Utility
FS Granted
LN.CNT 1657
INCL INCLM: 530/300.000
INCLS: 530/326.000; 530/327.000; 530/403.000; 424/184.100; 424/001.570;
424/185.100; 424/277.100
NCL NCLM: 530/300.000
NCLS: 424/184.100; 424/185.100; 424/277.100; 530/326.000; 530/327.000;
530/403.000
IC [6]
ICM: A61K039-385
ICS: A61K039-39; C07K007-04; C07K014-47
EXF 530/326; 530/327; 424/184.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> s hydrophilic and hydrophobic and epitope

```
13771 HYDROPHILIC
      3 HYDROPHILICS
13772 HYDROPHILIC
      (HYDROPHILIC OR HYDROPHILICS)
32667 HYDROPHOBIC
      6 HYDROPHOBICS
32669 HYDROPHOBIC
      (HYDROPHOBIC OR HYDROPHOBICS)
23573 EPITOPE
58067 EPITOPES
67701 EPITOPE
      (EPITOPE OR EPITOPES)
L1      131 HYDROPHILIC AND HYDROPHOBIC AND EPITOPE
```

=> d ibib ab 1-131

show files

File 155:MEDLINE(R) 1966-2001/Aug W2

File 5:Biosis Previews(R) 1969-2001/Jul W4

(c) 2001 BIOSIS

File 315:ChemEng & Biotec Abs 1970-2001/May

(c) 2001 DECHEMA

File 73:EMBASE 1974-2001/Jul W4

(c) 2001 Elsevier Science B.V.

File 399:CA SEARCH(R) 1967-2001/UD=13505

(c) 2001 AMERICAN CHEMICAL SOCIETY

File 351:Derwent WPI 1963-2001/UD,UM &UP=200142

(c) 2001 Derwent Info Ltd

?ds

Set	Items	Description
S1	77	HO(3N)HI(3N)HO
S2	15412	HYDROPHOBIC(3N)HYDROPHILIC(3N)HYDROPHOBIC
S3	28	HO()HI()HO
S4	2	S1 (5N) (EPITOPE? ? OR MOTIF? ? OR ANTIBOD? OR IMMUNOGLOBU- LIN? ? OR ANTISERUM OR ANTI()SERUM OR ANTISERA OR ANTI()SERA)
S5	1368	HYDROPHOBIC()HYDROPHILIC()HYDROPHOBIC
S6	10	HO()HI
S7	10	S6()HO
S8	1114	HYDROPHOBIC()HYDROPHILIC
S9	1114	S8()HYDROPHOBIC
S10	11	S9 (5N) (EPITOPE? ? OR MOTIF? ? OR ANTIBOD? OR IMMUNOGLOBU- LIN? ? OR ANTISERUM OR ANTI()SERUM OR ANTISERA OR ANTI()SERA)
S11	19	S4 OR S7 OR S10
S12	14	RD S11 (unique items)

?t 12/7/all

12/7/1 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

08931044 96227769 PMID: 8679914

Electro-optics of membrane electroporation in diphenylhexatriene-doped lipid bilayer vesicles.

Kakorin S; Stoylov SP; Neumann E

Faculty of Physics, University of St. Petersburg, Russia.

Biophysical chemistry (NETHERLANDS) Jan 16 1996, 58 (1-2) p109-16,

ISSN 0301-4622 Journal Code: A5T

Erratum in Biophys Chem 1996 Jun 11;60(3) 153

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

The electric (linear) dichroisms observed in the membrane electroporation of salt-filled lipid bilayer vesicles (diameter $\phi = 2 \alpha = 0.32$ micron; inside $[\text{NaCl}] = 0.2 \text{ M}$) in isotonic aqueous 0.284 M sucrose- 0.2 mM NaCl solution indicate orientation changes of the anisotropic light scattering centers (lipid head groups) and of the optical transition moments of the membrane-inserted probe 1,6-diphenyl-1,3,5-hexatriene (DPH). Both the turbidity dichroism and DPH absorbance dichroism show peculiar features: (1) at external electric fields $E > \text{or} = E_{\text{sat}}$ the time course of the dichroism shows a maximum value (reversal): $E_{\text{sat}} = 4.0 (+/- 0.2) \text{ MV m}^{-1}$, $T = 293 \text{ K}$ (20°C), (2) this reversal value is independent of the field strength for $E > \text{or} = E_{\text{sat}}$, (3) the dichroism amplitudes exhibit a maximum value $E_{\text{max}} = 3.0 (+/- 0.5) \text{ MV m}^{-1}$, (4) for the pulse duration of 10

microseconds there is one dominant visible normal mode, the relaxation rate increases up to τ^{-1} approximately $0.6 \times 10^6 \text{ s}^{-1}$ at E_{sat} and then decreases for $E > E_{\text{sat}}$. The data can be described in terms of local lipid phase transitions involving clusters L_n of n lipids in the pore edges according to the three-state scheme $C \leftrightarrow HO \leftrightarrow HI$, C being the closed bilayer state, HO the hydrophobic pore state and HI the hydrophilic or inverted pore state with rotated lipid and DPH molecules. At $E \geq E_{\text{sat}}$, further transitions $HO \leftrightarrow HO^*$ and $HI \leftrightarrow HI^*$ are rapidly coupled to the $C \leftrightarrow HO$ transition, which is rate-limiting. The vesicle geometry conditions a $\cos \theta$ dependence of the local membrane field effects relative to the E direction and the data reflect $\cos \theta$ averages. The stationary induced transmembrane voltage $\Delta \phi$ (θ , λ_m) = $-1.5 a E_f(\lambda_m)$ magnitude of $\cos \theta$ does not exceed the limiting value $\Delta \phi_{\text{sat}}$ = -0.53 V , corresponding to the field strength $E_{m,\text{sat}}$ = $-\Delta \phi_{\text{sat}}/d$ = 100 MV m^{-1} (10^3 kV cm^{-1}), due to increasing membrane conductivity λ_m . At $E = E_{\text{sat}}$, $f(\lambda_m) = 0.55$, $\lambda_m = 0.11 \text{ mS m}^{-1}$. The lipid cluster phase transition model yields an average pore radius of $r_p = 0.35$ (± 0.05) nm of the assumed cylindrical pore of thickness $d = 5 \text{ nm}$, suggesting an average cluster size of $\langle n \rangle = 12$ (± 2) lipids per pore edge. For $E > E_{\text{sat}}$, the total number of DPH molecules in pore states approaches a saturation value; the fraction of DPH molecules in HI pores is 12 (± 2)% and that in HO pores is 48 (± 2)%. The percentage of membrane area P approximately $(\lambda_m/\lambda_i) \times 100\%$ of conductive openings filled with the intravesicular medium of conductance $\lambda_i = 2.2 \text{ S m}^{-1}$ linearly increases from P approximately 0% ($E = 1.8 \text{ MV m}^{-1}$) to $P = 0.017\%$ ($E = 8.5 \text{ MV m}^{-1}$). Analogous estimations made by Kinoshita et al. (1993) on the basis of fluorescence imaging data for sea urchin eggs give the same order of magnitude for P (0.02 - 0.2%). The increase in P with the field strength is collinear with the increase in concentration of HI and HI^* states with the field strength, whereas the HO and HO^* states exhibit a sigmoid field dependence. Therefore our data suggest that it is only the HI and HI^* pore states which are conductive. It is noted that the various peculiar features of the dichroism data cannot be described by simple whole particle deformation.

Record Date Created: 19960822

12/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

08585308 95206304 PMID: 7534869

Hydrophobic, hydrophilic and other interactions in epitope-paratope binding.

Van Oss CJ

Department of Microbiology, State University of New York at Buffalo 14214.

Molecular immunology (ENGLAND) Feb 1995, 32 (3) p199-211, ISSN 0161-5890 Journal Code: NG1

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

Macroscopic, non-covalent, aspecific interactions between hydrophilic biopolymers, particles and cells in aqueous media tend to be repulsive; they are caused by Lifshitz-van der Waals (LW), Lewis acid-base (AB) and electrostatic (EL) forces. Microscopic scale specific interactions, e.g. between epitopes and paratopes, are also non-covalent and caused by attractive LW, AB and EL forces, which locally must be able to overcome the

long- to medium-range macroscopic aspecific repulsive forces. Thus epitopes and paratopes need to be able to attract each other over a distance of at least 3 nm. The medium- and long-range specific attractive forces are mainly of hydrophobic (AB) and of EL origin; in aqueous media the medium- and long-range LW attractions are usually much weaker. It has been shown that hydrophobic (AB) interactions are as often enthalpic as entropic. Upon expulsion of interstitial water of hydration between epitope and paratope, a strong interfacial bond ultimately arises which is mainly caused by LW forces.

Record Date Created: 19950426

12/7/3 (Item 3 from file: 155)
DIALOG(R) File 155:MEDLINE(R)

06795438 92052118 PMID: 1946362

Do interhelical side chain-backbone hydrogen bonds participate in formation of leucine zipper coiled coils?

Tropsha A; Bowen JP; Brown FK; Kizer JS

Brain and Development Research Center, University of North Carolina, Chapel Hill 27599.

Proceedings of the National Academy of Sciences of the United States of America (UNITED STATES) Nov 1 1991, 88 (21) p9488-92, ISSN 0027-8424

Journal Code: PV3

Contract/Grant No.: HD 03110, HD, NICHD; MH 33127, MH, NIMH

Languages: ENGLISH

Document type: Journal Article

Record type: Completed

The leucine zipper proteins are a group of transcriptional regulators that dimerize to form a DNA binding domain. It has been proposed that this dimerization results from the hydrophobic association of the alpha-helices of two leucine zipper monomers into a coiled coil. We propose a model for a coiled coil based on a periodic hydrophobic-hydrophilic amino acid motif found in the leucine zipper regions of 11 transcriptional regulatory proteins. This model predicts the symmetrical formation of secondary hydrogen bonds between the polar side chains of one helix and the peptide carbonyls of the opposite chain, supplementing the interactions between hydrophobic side chains. Physical modeling (CPK) and in vacuo molecular mechanics calculations of the stability of the GCN4 leucine zipper coiled coil configured in accordance with this model demonstrate a greater stability for this conformer than for a conformer configured according to a current hydrophobic model. Molecular dynamics simulations show similar stability of the two models in vacuo but a higher stability of the hydrophobic model in water.

Record Date Created: 19911203

12/7/4 (Item 1 from file: 5)
DIALOG(R) File 5:BIOSIS Previews(R)
(c) 2001 BIOSIS. All rts. reserv.

10081418 BIOSIS NO.: 199598536336

Promotion of cholesterol crystal nucleation by immunoglobulins (IGS) is not dependent on hydrophobic/ hydrophilic balance.

AUTHOR: Upadhyaya G A; Harvey P R C; Strasberg S M

AUTHOR ADDRESS: Washington Univ. Sch. Med., St. Louis, MO**USA

JOURNAL: Hepatology 22 (4 PART 2):p111A 1995

CONFERENCE/MEETING: 46th Annual Meeting and Postgraduate Course of the
American Association for the Study of Liver Diseases Chicago, Illinois,
USA November 3-7, 1995

ISSN: 0270-9139

RECORD TYPE: Citation

LANGUAGE: English

12/7/5 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
(c) 2001 AMERICAN CHEMICAL SOCIETY. All rts. reserv.

133320994 CA: 133(23)320994a PATENT
Improved method of identifying and locating immunobiologically-active
linear peptides
INVENTOR(AUTHOR): Kokolus, William J.
LOCATION: USA
PATENT: PCT International ; WO 200063693 A1 DATE: 20001026
APPLICATION: WO 2000US10585 (20000419) *US PV130230 (19990420) *US 552461
(20000418)

PAGES: 39 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: G01N-033/53A;
C12P-021/00B; C07K-001/00B; A61K-039/00B DESIGNATED COUNTRIES: AE; AL; AM;
AT; AU; AZ; BA; BB; BG; BR; BY; CA; CH; CN; CR; CU; CZ; DE; DK; DM; EE; ES;
FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC;
LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; NO; NZ; PL; PT; RO; RU;
SD; SE; SG; SI; SK; SL; TJ; TM; TR; TT; TZ; UA; UG; UZ; VN; YU; ZA; ZW; AM;
AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS; MW; SD
; SL; SZ; TZ; UG; ZW; AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT;
LU; MC; NL; PT; SE; BF; BJ; CF; CG; CI; CM; GA; GN; GW; ML; MR; NE; SN; TD;
TG

SECTION:
CA215002 Immunochemistry
CA202XXX Mammalian Hormones
IDENTIFIERS: antigen epitope identification, hydrphobicity hydrophilicity
curve antigen protein motif
DESCRIPTORS:
Animal virus... Microorganism...
antigen; improved method comprising math. generated curve for
identifying and locating immunobiol.-active linear peptides
Mathematical methods...
curve; improved method comprising math. generated curve for identifying
and locating immunobiol.-active linear peptides
Antigens...
differentiation, cluster; improved method comprising math. generated
curve for identifying and locating immunobiol.-active linear peptides
Reaction...
equation; improved method comprising math. generated curve for
identifying and locating immunobiol.-active linear peptides
Protein motifs...
hydrophobic-hydrophilic-hydrophobic; improved method comprising math.
generated curve for identifying and locating immunobiol.-active linear
peptides
Prostate-specific antigen...
immunogenic epitope; improved method comprising math. generated curve
for identifying and locating immunobiol.-active linear peptides
Antigens... Antiserums... Epitopes... Growth factors, animal...
Hormones, animal, biological studies... Hydrophobicity... Interferons...

Lymphokines... Tumor markers...
 improved method comprising math. generated curve for identifying and
 locating immunobiol.-active linear peptides

Hydrophilicity...
 Kyte-Doolittle hydropathy value; improved method comprising math.
 generated curve for identifying and locating immunobiol.-active linear
 peptides

Histocompatibility antigens...
 MHC (major histocompatibility complex); improved method comprising
 math. generated curve for identifying and locating immunobiol.-active
 linear peptides

Proteins, specific or class...
 nuclear matrix-assocd.; improved method comprising math. generated
 curve for identifying and locating immunobiol.-active linear peptides

Gene...
 oncogene; improved method comprising math. generated curve for
 identifying and locating immunobiol.-active linear peptides

Diagnosis...
 testing; improved method comprising math. generated curve for
 identifying and locating immunobiol.-active linear peptides

Proteins, specific or class...
 tumor suppressor; improved method comprising math. generated curve for
 identifying and locating immunobiol.-active linear peptides

Antigens...
 tumor-assocd.; improved method comprising math. generated curve for
 identifying and locating immunobiol.-active linear peptides

CAS REGISTRY NUMBERS:
 75037-46-6 immunogenic epitope; improved method comprising math. generated
 curve for identifying and locating immunobiol.-active linear peptides

12/7/6 (Item 2 from file: 399)
 DIALOG(R) File 399: CA SEARCH(R)
 (c) 2001 AMERICAN CHEMICAL SOCIETY. All rts. reserv.

132346609 CA: 132(26)346609h PATENT
 Hydropathicity plot analysis for epitope mapping
 INVENTOR(AUTHOR): Kokolus, William J.; Fritsche, Herbert A.; Johnston,
 Dennis A.
 LOCATION: USA
 PATENT: United States ; US 6070126 A DATE: 20000530
 APPLICATION: US 97078 (19980612) *US PV49613 (19970613)
 PAGES: 19 pp. CODEN: USXXAM LANGUAGE: English CLASS: 702019000;
 C07K-014/00A
 SECTION:
 CA215001 Immunochemistry
 IDENTIFIERS: epitope mapping hydropathicity algorithm
 DESCRIPTORS:
 CD antigens... Complement receptors... Growth factors, animal...
 Histocompatibility antigens... Hormones, animal, biological studies...
 Interferons... Interleukins... Lymphotoxin... Transforming proteins...
 Tumor necrosis factors...
 algorithmic hydropathicity anal. for epitope mapping of
 Complement...
 algorithmic hydropathicity anal. for epitope mapping of components of
 Peptides, biological studies...
 antigenic; location, optimal length and immunobiol. potency of

Immunoassay...
 enzyme-linked immunosorbent assay; for detn. of immunobiol. potency of antigenic peptides assocd. with algorithmic hydropathicity anal. of proteins

Immunoassay...
 fluorescence; for detn. of immunobiol. potency of antigenic peptides assocd. with algorithmic hydropathicity anal. of proteins

Algorithm... Simulation and Modeling,biological...
 hydropathicity anal. of proteins for location, optimal length and immunobiol. potency of antigenic peptides

Hydrophobicity...
 location, optimal length and immunobiol. potency of antigenic peptides by algorithmic anal. of

Amino acids,properties...
 location, optimal length and immunobiol. potency of antigenic peptides by hydropathicity anal. of

Antigens... Proteins,general,properties...
 location, optimal length and immunobiol. potency of antigenic peptides of

Protein motifs...
 location, optimal length and immunobiol. potency of antigenic peptides within proteins by anal. of hydrophobic-hydrophilic-hydrophobic hydropathy pattern

Epitopes...
 mapping; by algorithmic anal. of hydrophobic-hydrophilic-hydrophobic hydropathy pattern of protein antigens

Proteins,specific or class...
 nuclear matrix-assocd.; algorithmic hydropathicity anal. for epitope mapping of

Immunoassay...
 radioimmunoassay; for detn. of immunobiol. potency of antigenic peptides assocd. with algorithmic hydropathicity anal. of proteins

Proteins,specific or class...
 tumor suppressor; algorithmic hydropathicity anal. for epitope mapping of

Antigens...
 tumor-assocd.; algorithmic hydropathicity anal. for epitope mapping of

Antigens...
 viral; algorithmic hydropathicity anal. for epitope mapping of

12/7/7 (Item 1 from file: 351)
 DIALOG(R)File 351:Derwent WPI
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013475584
 WPI Acc No: 2000-647527/200062
 Determining the optimal length of an immunobiologically-active linear peptide, comprises fitting a hydrophilicity and/or hydrophobicity plot to a mathematically generated continuous curve to generate a set of potential epitopes
 Patent Assignee: KOKOLUS W J (KOKO-I)
 Inventor: KOKOLUS W J
 Number of Countries: 089 Number of Patents: 002
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200063693	A1	20001026	WO 2000US10585	A	20000419	200062 B

AU 200046489 A 20001102 AU 200046489 A 20000419 200107

Priority Applications (No Type Date): US 2000552461 A 20000418; US 99130230 A 19990420

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 200063693 A1 E 39 G01N-033/53

Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN
CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP
KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE
SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR
IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW

AU 200046489 A G01N-033/53 Based on patent WO 200063693

Abstract (Basic): WO 200063693 A1

NOVELTY - Determining (M1) the optimal length of an immunobiologically-active linear peptide epitope of a polypeptide comprises fitting a hydrophilicity and/or hydrophobicity plot generated for the polypeptide amino acid (aa) linear sequence to a mathematically generated continuous curve, generating a set of potential epitopes (PE) including ranked PE's having a specific number of aa residues.

DETAILED DESCRIPTION - Determining the optimal length of an immunobiologically-active linear peptide epitope of a polypeptide characterized by:

(a) providing a curve characterizing the hydrophilicity and/or hydrophobicity of the linear sequence of aa's of the polypeptide;

(b) generating a PE set by fitting a window of the curve to a mathematically generated continuous curve having repeating values at regular intervals with a maximum positive value, the window containing a specific number of aa's and is lagged through the curve;

(c) increasing the number of residues in the window after each lagging;

(d) determining and ranking PE's for each set by selecting PE's having a positive-fit correlation value determined by fitting the curves, providing a set of ranked PE's for each window of residues, the most positive-fit correlation value ranked first in each PE set;

(e) examining the position of the highest ranked PE's of each set relative to the linear sequence of the plot to determine a set of PE's that exhibit alternating positioning about an equilibrium position, the ranking values of the PE's converge towards or diverge away from the equilibrium position; and

(f) designating the PE's of the set having the most alternating ranking value that converge or diverge as the immunologically active epitopes which have an optimal length equating to a numeric value of aa's in the PE's.

INDEPENDENT CLAIMS are also included for the following:

(1) determining (M2) the optimal length of an immunobiologically active linear peptide epitope of a polypeptide characterized by a hydrophobic -hydrophilic -hydrophobic (Ho -Hi -Ho) motif by:

(a) assigning an average hydropathy value to each aa of the polypeptide;

(b) generating a hydrophilicity plot using the average hydropathy value of each aa;

(c) fitting a curve segment of the hydrophilicity plot to a negative cosine function, where a specific period number value of the negative cosine function equates to the number of aa in the curve

segment, the period number increasing within a predetermined chosen period number range after each sequential lagging through the hydrophilicity plot, providing fit-correlation values for each curve segment across the linear sequence when using the specific period number valued) generating a potential Ho -Hi -Ho epitope set for each specific period number range, where each set contains potential Ho -Hi -Ho epitopes that have a fit-correlation value;

(e) ranking each PE in the set to positive fit-correlation values, where the epitope having the highest value is ranked number one, therefore providing ranked PE's for each specific period number value;

(f) examining the position of the highest ranked Ho -Hi -Ho PE's of each set relative to the linear sequence of the plot of (a) to determine a set of PE's that exhibit alternating positioning about an equilibrium position where the ranking values of the PE's converge towards or diverge away from the equilibrium position; and

(g) designating the PE's of the set having the most alternating ranking values that converge or diverge as the immunologically active epitopes which have an optimal length equating to a numeric value of aa's in the potential epitopes;

(2) determining the viability of a protein comprising:

(a) finding the immunobiologically active epitopes of a polypeptide and their optimal length using (1); and

(b) comparing the optimal length to the optimal length found in anti-polypeptide antisera;

(3) an antigenic composition comprising a Ho -Hi -Ho epitope of contiguous aa's from a polypeptide, having an optimal length of aa's determined by (1);

(4) determining (M3) the optimal length of an immunologically-active linear peptide epitope of a polypeptide comprising:

(a) fitting a hydrophilicity and/or hydrophobicity plot generated for the aa linear sequence of the polypeptide to a mathematically generated continuous curve, generating PE sets including ranked PE's having a specific number of aa's; and

(b) comparing the sets of ranked PE's to other generated data to determine the immunologically-active linear peptide epitope and its optimal length; or

(c) positioning the ranked PE's for each set on the hydrophilicity and/or hydrophobicity plot to determine the oscillating behavior of the numeric value of ranked PE's; and

(d) deeming the PE's that exhibit the most alternating positioning about an equilibrium position when juxtaposed on the plot as the theoretical epitopes and their optimal length corresponds to the specific number of aa's in the set of ranked PE's5) a Ho -Hi -Ho epitope of a polypeptide characterized by a Ho -Hi -Ho motif having an optimal length of aa's determined by (1) or (4);

(6) an antisera specific for a Ho -Hi -Ho epitope of contiguous aa's from a polypeptide, where the epitope has an optimal length of aa's determined by (1) or (4); and

(7) a diagnostic method comprising contacting a sample with antisera specific for a Ho -Hi -Ho epitope which is characterized by a Ho -Hi -Ho - motif with an optimal length of aa's determined by (1) or (4), and detecting the binding of the antisera to a polypeptide in the sample.

USE - The new method is used to determine the optimal length of an immunobiologically-active linear peptide epitope of a polypeptide (claimed). The viability of a protein can be determined (claimed).

Protein epitopes can be identified, the location determined, and the immunobiological potency determined.

pp; 39 DwgNo 0/2

Derwent Class: B04; D16; S03

International Patent Class (Main): G01N-033/53

International Patent Class (Additional): A61K-039/00; C07K-001/00;
C12P-021/00

12/7/8 (Item 2 from file: 351)

DIALOG(R)File 351:Derwent WPI

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013239081

WPI Acc No: 2000-410955/200035

Determining the length of amino acid residues and identifying immunobiologically-active linear peptide epitopes of a protein antigen comprises applying a custom negative cosine fit algorithm to a protein hydropathy scale

Patent Assignee: KOKOLUS W J (KOKO-I)

Inventor: FRITSCH H A; JOHNSTON D A; KOKOLUS W J

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6070126	A	20000530	US 9749613	A	19970613	200035 B
			US 9897078	A	19980612	

Priority Applications (No Type Date): US 9749613 A 19970613; US 9897078 A 19980612

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6070126	A	19		C07K-014/00	Provisional application US 9749613

Abstract (Basic): US 6070126 A

NOVELTY - Identifying immunobiologically-active peptide epitopes and determining the location, optimal length of amino acid residues and immunobiological potency of the protein epitopes comprises applying a custom negative cosine function fit algorithm to a protein hydropathy scale. The amino acid sequence of the protein epitopes exhibits a hydrophobic -hydrophilic -hydrophobic hydropathy motif of an approximately fixed length in a given protein.

DETAILED DESCRIPTION - Determining an optimal length of contiguous amino acid residues of an immunologically-active linear peptide epitopes (Ho -Hi -Ho model epitope) within a polypeptide comprises:

(1) assigning a window average hydropathy value to each amino acid of the polypeptide;

(2) generating a hydropathy plot using the assigned value in (1);

(3) fitting each curve segment of (2) to a negative cosine function, where a specific period number value of the negative cosine function increases within a predetermined chosen period number range after each sequential lagging through the hydropathy plot, thus providing fit-correlation values for each region of the amino acid sequence number ranges of the polypeptide when using the specific period number value;

(4) generating a potential Ho -Hi -Ho model epitope set for each specific period number value within the chosen period number

range, where each potential Ho -Hi -Ho model epitope set contains potential Ho -Hi -Ho model epitopes with the amino acid sequence number ranges that have a positive-fit correlation value;

(5) ranking each potential Ho -Hi -Ho model epitope with amino acid sequence number range in the potential Ho -Hi -Ho model epitope set according to positive fit-correlation values, where the potential Ho -Hi -Ho model epitope with amino acid sequence number range having the highest positive-fit correlation value is ranked number one, thus providing ranked Ho -Hi -Ho model theoretical epitopes for each specific period number value;

(6) providing peptides that together span the length of the polypeptide, the peptides having a length of 15-25 mers;

(7) generating experimental data on immunobiologic reactivity of the peptides;

(8) ranking experimental peptides according to experimental immunobiologic reactivity, to provide a peptide experimental ranking value for each peptide;

(9) comparing amino acid sequences of the experimental peptide with amino acid residue sequences of the ranked Ho -Hi -Ho model theoretical epitopes, where a positive correlation of amino acid residue sequences provides the basis for assigning the experimental peptide a theoretical ranking dependent upon the ranking of a corresponding Ho -Hi -Ho model theoretical epitope, thus providing a peptide theoretical ranking for each peptide when using the potential Ho -Hi -Ho model epitope set derived from a specific period number value;

(10) calculating a correlation coefficient by correlating the peptide experimental ranking to the peptide theoretical ranking for each peptide when using a potential Ho -Hi -Ho model epitope set derived from a specific period number value;

(11) determining a statistical p-value of the correlation coefficient;

(12) determining the specific period number value having the lowest statistical p-value; and

(13) determining an optimal length of a Ho -Hi -Ho model epitope by assigning the specific period number value with the lowest statistical p-value to the Ho -Hi -Ho model epitope.

USE - The method is useful for determining Ho -Hi -Ho model epitope fields of proteins, as well as the optimal size of epitopes. The method is also useful for determining the immunopotency of an epitope. Furthermore, the method is useful in selecting immunobiologically-active linear peptide epitopes from a variety of polypeptides once the amino acid sequence of the polypeptide is determined. Thus, the method is useful in testing the potential antigenicity of a peptide antigen prior to being used to generate bulk antisera for vaccines. The method is also useful in determining Ho -Hi -Ho model epitopes involved in enzyme-substrate interaction or protein-protein interaction, as well as to differentiate defective proteins. The Ho -Hi -Ho model epitopes are useful in diagnostic tests, e.g. immunoassays, to detect viruses, microbes and malignant cells. They are also useful in prophylactic or therapeutic vaccines to elicit immune responses.

ADVANTAGE - Various methods have been used to identify and predict the location of continuous epitopes in proteins by analyzing certain features of their primary structure. Hydrophilicity provides the basis for determining protein epitopes by analyzing an amino acid sequence in order to find the greatest local hydrophilicity. However, this method

does not provide any information as to the optimal length. Another method measures the amino acid sequence of a protein using the Kyte-Doolittle (Kyte and Doolittle, J. Mol. Biol. 72: 105, 1982) scale. This is commonly used to evaluate the hydrophilic and hydrophobic tendencies of polypeptide chains using a hydropathy scale. However, this method does not predict the optimal length of the epitope nor indicate if the effective size of epitopes is unique for each protein molecule. The present method is simple and can identify a peptide epitope, as well as determine the optimal length or size, location of the epitope within a polypeptide, and the level of immunopotency of the epitope.

pp; 19 DwgNo 0/6

Derwent Class: B04

International Patent Class (Main): C07K-014/00

12/7/9 (Item 3 from file: 351)
DIALOG(R)File 351:Derwent WPI
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009994463 **Image available**

WPI Acc No: 1994-262174/199432

Boiler furnace - has nozzles protruding into flow part of gas duct to extent determined by specified equation

Patent Assignee: KAZAN SECT MOSC POWER INST (MOPO)

Inventor: GALITSKII YU YA

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
RU 2006744	C1	19940130	SU 4942602	A	19910604	199432 B

Priority Applications (No Type Date): SU 4942602 A 19910604

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
RU 2006744	C1		4	F23C-009/00	

Abstract (Basic): RU 2006744 C

The furnace has nozzles (4) which protrude into the chamber (1) forming the gas duct to different extents, determined by the equation:

$$([h_o - h_i] / [h_o - h_i + 1])^2 = T_i / (T_i + 1)$$

): where h

o is t

Derwent Class: Q73

International Patent Class (Main): F23C-009/00

12/7/10 (Item 4 from file: 351)
DIALOG(R)File 351:Derwent WPI
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009584379

WPI Acc No: 1993-277925/199335

Pneumatic tyre with reduced vibration transmission to car body - having sidewalls with specific damping coefft. ratio

Patent Assignee: YOKOHAMA RUBBER CO LTD (YOKO)

Inventor: HASHIMURA Y; KATSURA N; KOGURE T; MIYAZAKI Y; OKIHARA M; SHIDA Z

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 5193310	A	19930803	JP 929224	A	19920122	199335 B
US 5386863	A	19950207	US 932362	A	19930106	199512
JP 3104040	B2	20001030	JP 929224	A	19920122	200057

Priority Applications (No Type Date): JP 929224 A 19920122

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 5193310	A		6	B60C-013/00	
US 5386863	A		5	B60C-003/06	
JP 3104040	B2		5	B60C-013/00	Previous Publ. patent JP 5193310

Abstract (Basic): JP 5193310 A

In the tyre which is mounted on the wheel whose connection position with the rim is offset to the top side from the centre of the rim width, the damping coeffs. $H_0 = G_0 \times \tan \delta_0$ obtd. from the average thickness G_0 and $\tan \delta_0$ of the topside sideall rubber and $H_1 = G_1 \times \tan \delta_1$ obtd. from G_1 and $\tan \delta_1$ of the bottom side sidewall rubber, have a ratio of H_0 to H_1 of 1.2 to 6.5.

If H_0 to H_1 is smaller than 1.2, the vibration which is transmitted through the tyre top side to the vehicle body increases and the ride quality lowers. If H_0 to H_1 exceeds 6.5, the control stability lowers.

ADVANTAGE - The tyre reduces the vibration which is transmitted to the vehicle body through the wheel and can improve the ride quality.

Dwg.0/1

Abstract (Equivalent): US 5386863 A

Pneumatics tyre has a ratio H_0/H_1 of a first attenuation coefficient $H_0 = G_0 \times \tan \delta_0$ determined on the basis of a first multi-spot averaged thickness G_0 of the outer side wall of the tyre to a second such coefficient $H_1 = G_1 \times \tan \delta_1$ determined on the basis of a second such averaged thickness G_1 of the inner side wall and a loss factor $\tan \delta_1$ of the rubber of the inner side wall is set at 1.2 to 6.5, the two thicknesses are determined by dividing a portion of the resp. side wall between 20 to 75% of radial ht.

A cross section of the tyre measured from a radially inner edge of a bead core to an outer radial surface of the tread in ten equal parts; measuring a thickness of rubber of each part along a straight line passing a circumferentially intermediate portion and reaching an outer surface of an underlying element at right angles; and arithmetically averaging the thickness values of the ten divisional parts with respect to the intermediate portions. The first multi-spot av. of the thickness G_0 is set at 2.5 mm-4.0 mm while G_1 is 1.5-2.5 mm.

USE - For wheels where discs are set near to the wheel rim.

Dwg.0/1

Derwent Class: A95; Q11

International Patent Class (Main): B60C-003/06; B60C-013/00

International Patent Class (Additional): B60B-021/00; B60C-009/08

12/7/11 (Item 5 from file: 351)
DIALOG(R)File 351:Derwent WPI
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009311552

WPI Acc No: 1993-005015/199301

Thick non-oriented electromagnetic steel plate prodn. - comprises heating slab to 950-1150 deg C. hot rolling with specified redn. ratio and hot-rolling at below 800 deg. C with draft of 35-0 per cent

Patent Assignee: NIPPON STEEL CORP (YAWA)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 4333518	A	19921120	JP 91104488	A	19910509	199301 B
JP 2503123	B2	19960605	JP 91104488	A	19910509	199627

Priority Applications (No Type Date): JP 91104488 A 19910509

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 4333518	A		5	C21D-008/12	
JP 2503123	B2		6	C21D-008/12	Previous Publ. patent JP 4333518

Abstract (Basic): JP 4333518 A

A steel slab including (by wt.) C, less than 0.01%, Si 0.1-0.4% Mn, less than 0.20%, S less than 0.010%, Al less than 0.040%, N less than 0.004

, O less than 0.005%, H less than 0.0002% and remainder Fe. is heated to 950-1150 deg. C hot-rolled in redn. ratio (A) more than 0.6 and hot-rolled at temp. of lower than 800 deg. C with draft 35-70%. The redn. ratio (A) is determined by the formula: $A = (2 \times \text{square root of } R \text{ (hi-ho) / (hi + ho)})$ A is reduction ratio, hi is inlet side thickness (mm), ho is outlet side thickness (mm), R is rolling roll radii (mm).

USE/ADVANTAGE - Used for mfr. of non-oriented electromagnetic thick steel plate. Has homogeneous electromagnetic property.

Dwg. 0/4

Derwent Class: L03; M24; M27

International Patent Class (Main): C21D-008/12

International Patent Class (Additional): C22C-038/00; C22C-038/06;

H01F-001/16

12/7/12 (Item 6 from file: 351)

DIALOG(R) File 351: Derwent WPI

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008353965 **Image available**

WPI Acc No: 1990-240966/199032

Scanning plane corrector for profile measuring laser scanner - compares measured ht. of inclined edge of triangular or conical member during 1st and successive scans

Patent Assignee: AEROEL DI SPIZZAMIG (AERO-N); AEROEL SRL (AERO-N); AEROEL

DI SPIZZAMIGLIO & C SNC A (AERO-N)

Inventor: SPIZZAMIGL A; SPIZZAMIGLIO A

Number of Countries: 007 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 381633	A	19900808	EP 90830035	A	19900129	199032 B
US 5172001	A	19921215	US 90471338	A	19900129	199301
IT 1235330	B	19920626	IT 8982801	A	19890130	199311
EP 381633	B1	19941228	EP 90830035	A	19900129	199505
DE 69015379	E	19950209	DE 615379	A	19900129	199511
			EP 90830035	A	19900129	

Priority Applications (No Type Date): IT 8982801 A 19890130
Cited Patents: 6.Jnl.Ref; A3...9105; EP 54170; JP 58100118; JP 59197813; JP 60235114; JP 61066107; NoSR.Pub; SU 1465704; US 4652749; US 4758093

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 381633	A				
Designated States (Regional): DE ES FR GB IT SE					
US 5172001	A		4	G01B-011/24	
EP 381633	B1	E	6	G01B-011/00	
Designated States (Regional): DE ES FR GB IT SE					
DE 69015379	E			G01B-011/00	Based on patent EP 381633
IT 1235330	B			G01B-000/00	

Abstract (Basic): EP 381633 A

The connection for variation of scanning plane position of a profile measuring laser scanner uses a triangular plate (1) attached thereto. The plate is vertical, with a horizontal edge (2) perpendicular to the initial scanning plane (9).

The height of intersection of the inclined edge (3) of the plate with the scanned plane is measured during the first and subsequent scans. For a 45 deg. plate, if these heights are h_0 and h_i respectively, the scan plane connection is $(h_0 - h_i)$. Alternatively, a mask, conical pin, or linear array of photosensitive devices, may be employed.

ADVANTAGE - Simple and cheap. (5pp Dwg.No. 1/1

Abstract (Equivalent): EP 381633 B

A method of automatically compensating transversal oscillations of the scanning plane in a laser scanner for profile measurement by means of a reference element, which oscillations cause error in measurements of the actual horizontal work piece position; said method comprising the steps of: a) placing the reference element having a known geometrical shape, fixed to the laser scanner body, across said laser scanning plane; b) measuring said reference element and said work piece, the profile of which is to be measured, in a first single scan of said laser scanner, the intersection of this scan plane with the workpiece axis determinates the origin of the horizontal coordinates; c) second measuring of said reference element and said workpiece in a second single scan of said laser scanner; d) determining the horizontal coordinate measuring error by multiplying the difference between said first and second reference element measurements by a known function which describes the scanning plane horizontal displacement vs. the length of the reference element vertical segment cut by the scanning plane itself; e) adding said scanning plane position error to the longitudinal coordinate read by a linear encoder; f) proceeding in the same way for each following scan in order to obtain the whole object corrected profile measurement despite the error of said scanning plane position; wherein the reference element has a geometrically known shape and consists of: a triangular plate (1) integral with the laser scanner; or a triangular mask integral with the laser scanner; or a pin in the shape of a truncated cone integral with the laser scanner.

Dwg.1/1

Abstract (Equivalent): US 5172001 A

The method for automatic correction of measurements of an object involves placing a reference element having a known geometrical shape, fixed to a gauge body, across the laser gauge scanning plane. The reference element and the object in a single scan of the profilometer

are measured. A second measuring of the reference element and the object is effected in a second single scan of the profilometer. Measuring error is determined by multiplying the difference between the first and second reference element measurements by a known function which describes the reference element geometrical profile. Scanning plane position error is added to a longitudinal coordinate read by a linear encoder. Corrected object profile measurements are determined despite the scanning plane position error. The first measurement is made at a different time than the second measurement. ADVANTAGE - Determines precise position of scanning plane in comparison with piece to be engaged.

(Dwg.1/1)

Derwent Class: S02

International Patent Class (Main): G01B-011/24

12/7/13 (Item 7 from file: 351)
DIALOG(R)File 351:Derwent WPI
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003915559

WPI Acc No: 1984-061103/198410

Granular material sieve - has vibration exciters along screen length mounted with spacing increasing in steps from loading to unloading end

Patent Assignee: AS UKR GEOTECH MECH INST CONS BUR (AUGD)

Inventor: CHERVONEN A G; POTURAEV V N; SHULYAK L A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1015931	A	19830507	SU 3359611	A	19811203	198410 B

Priority Applications (No Type Date): SU 3359611 A 19811203

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
SU 1015931	A	3		

Abstract (Basic): SU 1015931 A

The seive comprises box (1), screen (2), vibration exciters (6) connected to the screen by rods (7), and loading funnels (3), (4), and (5). The spacing of the steps between the vibrations exciters is given by $l_1 = L \ln \text{power}^{-1} (h_1/h_0) \ln(1-A_1/(h_0-h_1)/(n h_0))$ where L is the length of the screen, h_0 and h_1 are the height of the material layer during loading and unloading respectively, A_1 =between units 0.5 at $i=1$ and $(h_0/h_1)/((l_1+l_2+...l_i-1)/l)$ at $i=2,3,...n$, n is the number of traverse rows of vibration exciters and i is the number of the traverse row counted from the loading point.

The device increases the efficiency of the screening process by ensuring uniform vibrational action on the material over the whole surface of the sieve, irrespective of the material layer thickness. Bul.17/7.5.83.

(3pp Dwg.No.1/2)

Derwent Class: P43

International Patent Class (Additional): B07B-001/34

12/7/14 (Item 8 from file: 351)
DIALOG(R)File 351:Derwent WPI

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002087211

WPI Acc No: 1979-A7098B/197904

Charge coupled filter system - has alternate transport electrodes arranged in groups with two-channel structure (NL 16.1.79)

Patent Assignee: CETT CIE EURO TELET (CETT-N)

Inventor: BENOITGONI R; BERGER J L; FONTANES S

Number of Countries: 004 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 2830437	A	19790118				197904 B
GB 2001496	A	19790131				197905
NL 7807408	A	19790116				197905
FR 2397756	A	19790316				197916

Priority Applications (No Type Date): FR 7721464 A 19770712

Abstract (Basic): DE 2830437 A

A charged coupled filter is used. It generates an output such that $S=(h_o +h_i --h_n)E$ where h_o , h_i -- h_n are the rating coefficients.

The filter is designed to avoid problems associated with small valves of h_o , h_i -- h_n .

The CCD circuit device has a Silicon substrate with an isolating layer of Silicon Oxide. The input signals (E_1 , E_2) are entered to an injection stage (10, 20). Two sets of transport electrodes (11, 21) for the two channels are provided and are periodically clocked (ϕ_1). Two other sets (12, 22) are excited in a similar way (ϕ_2)

Derwent Class: U12; U13; U21; U22; U25

International Patent Class (Additional): H01L-027/10; H03H-007/28;

H03H-011/00; H03K-000/00

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